

What is claimed is:

1. A label application system for transferring labels from a liner onto a target surface, comprising:

(a) a label printer;

(b) a label applicator assembly, the applicator assembly having at least an air-directing manifold and an applicator head, the applicator head having an angled surface;

(c) a feed reel for supplying a label provided on a liner to the printer;

and

(d) a take-up reel for spooling an expended liner, the liner having tension between the feed reel and the take-up reel.

2. The label application system according to claim 1, further comprising:

a liner take-up motor, wherein the take-up motor is operably coupled to the take-up reel.

3. The label application system according to claim 2, further comprising:

a clutch, the clutch restricting the take-up reel to turn in only one direction.

4. The label application system according to claim 2, further comprising:

a liner tension detector.

5. The label application system according to claim 4, wherein the tension detector is a dancer arm, wherein the position of the dancer arm is detected by a first sensor.
6. The label application system according to claim 5, wherein the first sensor is an optical sensor.
7. The label application system according to claim 5, wherein the first sensor is a mechanical sensor.
8. The label application system according to claim 6, wherein the take-up motor is activated when the tension in the liner drops below a predetermined level.
9. The label application system according to claim 1 wherein, the label printer is a SATO® printer or a DataMax® printer.
10. The label application system according to claim 9, wherein the SATO® printer is a SATO® printer Model No. 8485 SE SATO® printer.

11. The label application system according to claim 1, wherein the feed reel further comprises:

a latch to securely hold the labels onto the feed reel.

12. The label application system according to claim 12 wherein the latch has a locked position and an unlocked position.

13. The label application system according to claim 1, further comprising:
an air supply, wherein the air supply is controlled by a solenoid.

14. The label application system according to claim 1, further comprising:
a baffle plate, the baffle plate scattering air through the air-directing manifold.

15. The label application system according to claim 13, further comprising:
a second sensor capable of controlling the air supply.

16. The label application system according to claim 1, wherein the applicator head has two angled surfaces, the surfaces joining at a midpoint of a face of the applicator head and forming an angle of approximately 170 degrees.

17. A label application method for using air to transfer labels from a liner onto a target surface, comprising:

- (a) providing a label on a label liner to a printer from a feed reel;
- (b) printing a label on a label printer;
- (c) positioning a label applicator assembly over a target surface, the applicator assembly having at least an air-directing manifold and an applicator head, the applicator head having an angled surface;
- (d) transferring the label from the liner to the target surface using applicator head-directed air; and
- (e) spooling the expended liner on a take-up reel, the liner having a tension between the feed reel and the take-up reel.

18. The label application method according to claim 17, further comprising:
detecting the tension between the feed reel and the take-up reel.

19. The label application method according to claim 17, further comprising:
activating a motor operably coupled to the take-up reel, when the detected tension drops below a predetermined threshold.

20. The label application method according to claim 17,

wherein the label printer is a SATO® printer or a DataMax® printer.

21. The label application method according to claim 17,
wherein the applicator head has two angled surfaces, the surfaces joining at a midpoint of a face of the applicator head and forming an angle of approximately 170 degrees.
22. The label application method according to claim 17, further comprising:
securing the labels to the feed reel with a feed reel latch.
23. A label application system using air to transfer a label from a label applicator assembly to a target surface, comprising:
 - (a) a printing means for printing on a label;
 - (b) an applicator means for applying a label onto a target surface using air as a propellant, the applicator means having at least an air-directing means for directing air to an applicator head means, the applicator head means having an angled surface;
 - (c) a label supplying means for supplying labels on a liner to the printer; and
 - (d) a liner take-up means for spooling the expended liner, the expended liner having tension between the feed reel and the take-up reel.

24. The label application system according to claim 23, further comprising:
an air supply means for supplying air to the applicator means.
25. The label application system according to claim 23, further comprising:
a detector means to detect the tension between the feed reel and the take-up reel.
26. The label application system according to claim 23, further comprising:
a drive means for driving the take-up reel, the drive means being operably coupled to the take-up reel and being activated when the detector means detects a tension drop below a predetermined threshold.
27. The label application system according to claim 23,
a second sensor capable of controlling the air supply.
28. The label application system according to claim 23,
wherein the label supplying means is a feed reel, the feed reel having a foot print, and the liner take-up means is a take-up reel, the take-up reel having a foot print, and wherein the feed reel footprint overlaps with the take-up reel footprint.

29. The label application system according to claim 23,
wherein the label supplying means further comprises a latching means to
securely hold the labels onto label supplying means.
30. The label application system according to claim 22,
wherein the label printing means is a SATO® printer or a DataMax®
printer.
31. The label application system according to claim 22, further comprising:
an air baffling means for scattering air through the applicator head means.